MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2015/2016

DCS5018 – COMPUTER SYSTEMS AND APPLICATIONS

(For Diploma Students Only)

1 JUNE 2016
02:30PM – 04:30PM
(2 Hours)

INSTRUCTIONS TO STUDENT :

1. This question paper consists of **5** pages with **3** sections.
2. Answer **ALL** questions.
3. For **section A** and **B**, shade your answer on the OMR sheet provided.
4. For **section C**, write your answers in the answer booklet provided.

Section A: Multiple Choice Questions (Total: 20 Marks)

Instruction: Please mark your answers on the OMR sheet provided.

1. A computer system's hardware _____.
   A. consists of the physical components of the computer
   B. is limited to three components
   C. may include a keyboard and monitor, but not speakers
   D. includes only output components

2. _____ handle gigantic processing jobs for large corporations or agencies.
   A. Servers
   B. Minicomputers
   C. Mainframes
   D. Midrange servers

3. Software that enables you to display and interact with text and other media on the web is a web _____.
   A. client
   B. server
   C. agent
   D. browser

4. Which of the following are a social networking site?
   i. Facebook
   ii. YouTube
   iii. LinkedIn
   iv. iTunes
   A. i, ii and iii
   B. ii and iii
   C. i, iii and iv
   D. i, ii, iii and iv

5. _____ applications are software in which the vendor hosts the software online over the Internet without installing it on computer.
   A. Proprietary as a Service
   B. Open Source as a Service
   C. Software as a Service
   D. Webware as a Service

6. _____ are the example of video-editing software.
   i. Adobe Premiere Pro
   ii. Apple's Final Cut Pro
   iii. iMovie
   iv. Windows Movie Maker
   A. i and iii
   B. i, ii and iv
   C. ii and iv
   D. i, ii, iii and iv

7. A _____ interface is the one in which you choose commands from menus displayed on the screen.
   A. menu-driven
   B. instruction-driven
   C. command-driven
   D. graphical user interface (GUI)

8. Windows 8 is designed for a variety of devices, including laptops, phones, and tablets. Below are the ways to accomplish tasks in Windows 8 **EXCEPT** _____.
   A. touching the screen
   B. using a microphone
   C. using keystrokes
   D. using a mouse

9. Hyperthreading _____.
   A. dictates how many instructions the CPU can process each second
   B. act as holding places for recently used instructions or data that the central processing unit accesses the most
   C. is the action of increasing a component's clock rate, running it at a higher speed than the manufacturer recommends
   D. provides high-speed information processing by enabling a new set of instructions to start before the previous set is finished

Continued.....

10. _____ for high-definition TVs, Blu-ray players, or gaming consoles.
    A. HDMI ports
    B. DVI ports
    C. DisplayPort adapters
    D. Video card

11. Which of the following is **NOT** an advantage of fiber-optic cable?
    A. Faster data transmission.
    B. Capability of carrying significantly more signals.
    C. Less cost than twisted-pair or coaxial cable.
    D. Better security for signals during transmission.

12. The statement below refers to _____.

> "Software that handles requests for information, Internet access, and the use of peripheral for the rest of the network node, providing the services necessary for the computers on the network to communicate."

    A. information management system (ISM)
    B. network operating system (NOS)
    C. digital subscriber line (DSL)
    D. service set identifier (SSID)

13. All of the following are components available in smartphone **EXCEPT** _____.
    A. network interface card
    B. LED display
    C. central processing unit (CPU)
    D. camera module

14. E-text is _____.
    A. a system of access control that allows only limited use of material that has been legally purchased
    B. the protocol responsible for sending e-mail along the Internet to its destination
    C. technology that enables short text messages to be sent over mobile networks
    D. digital textual information that can be stored, manipulated, and transmitted by electronic devices

15. Why are biometric devices gaining popularity as s security precautions?
    A. They are a secure method of identification.
    B. They are less expensive than other forms of identification.
    C. They are unaffected by physical conditions or feelings of stress.
    D. All of the above.

16. An example of phishing is _____.
    A. setting up a fake Wi-Fi hot spot
    B. sending bulk e-mail that asks for financial aid under a false cause
    C. setting up a fake banking Web site that asks users for confidential information
    D. pretending to be a utility company's employee in order to gather information from that company about their security system

17. _____ is the process of translating a task into a series of commands that a computer will use to perform the task.
    A. Diagramming
    B. Analyzing
    C. Programming
    D. Debugging

Continued.....

18. Which of the following would **NOT** be used to build websites with interactive capabilities?

i. Fortran
ii. Java Server Pages
iii. Active Server Pages
iv. PHP (hypertext preprocessor)

A. ii and iv
B. ii, iii, and iv
C. i, ii, iii and iv
D. i only

19. Refer to below statement; this database type is known as _____.

> "A database type that organizes data into related tables based on logical groupings."

A. relational
B. flat-file
C. multidimensional
D. object-oriented

20. A(n) _____ keeps track of everyday business activities.

A. office support system
B. decision support system
C. transaction-processing system
D. management information system

Section B: True / False (Total: 40 Marks)

Instruction: Please mark A for True statements and B for False statements in the OMR sheet provided.

21. Input devices hold all programs and data that the computer uses.
22. Liquid Crystal Display monitor is sandwiched between two transparent layers to form images.
23. A kilobyte is exactly 1024 bytes.
24. External hard drives reside in the unit and holds all permanently stored programs and data.
25. A web server is a database that indexes Web pages.
26. Streaming media is multimedia that is continuously fed to your browser so you do not have to wait for the entire file to download completely before listening to or watching it.
27. A search engine is a set of programs that searches for keywords and returns a list of the sites on which those keywords are found.
28. The protocol identifies the site's host, the location that maintains the computers that store the website files.
29. All education software is free.
30. Spreadsheet software lets you store and organize data into fields, records, and tables.
31. A free software license, the GNU General Public License allows and grants the recipients the right to modify and redistribute the software.
32. A full installation copies all the most commonly used files to your hard drive.
33. Apple's OS X and Linux OS are examples of operating system software.
34. Utility program manages the computer's hardware and peripheral devices.
35. Read-only memory is a type of firmware used during the booting process.

Continued.....

36. Windows organizes your computer in a hierarchical directory structure composed of drives, libraries, folders, subfolders, and files.
37. External drive bays can be seen and accessed from outside the system unit.
38. The processing cycle of control unit consists of three phases.
39. A CPU's processing power is determined by clock speed, number of cores and amount of cache memory.
40. Dolby Digital 7.1 requires a total of seven speakers.
41. A computer network is simply two or more computers that are connected via software and hardware so that they can communicate with each other.
42. Twisted-pair consists of a single copper wire surrounded by layers of plastic.
43. The three main types of unshielded twisted-pair (UTP) cable are Cat 5E, Cat 6 and Cat 6a.
44. An integrated network adapter is referred to as a network navigation device.
45. The operating system of a cell phone is stored in random access memory.
46. Cellular phone is a telephone that operate over a mobile network.
47. A main difference between the tablet and the smartphone is the screen size.
48. The process of updating your data is called synchronizing, or syncing.
49. Cybercriminal is any criminal action perpetrated primarily through the use of a computer.
50. Polymorphic viruses temporarily erase their code from the files where they reside and hide in the active memory of the computer.
51. A biometric authentication device is a device that reads a unique personal characteristic such as a fingerprint or the iris pattern in your eye and converts it to a digital code.
52. Grey-hat hackers break into systems to destroy information or for illegal gain.
53. An information system includes data, people, hardware, and software that help in planning and decision making.
54. Decision points force the program to travel down one or more branch of the algorithm at one time.
55. Computer programming languages use special words and strict rules so that programmers can control the CPU without having to know all its hardware details.
56. Android software development kit (SDK) is required to build apps targeting Android smartphones and tablets.
57. Data consistency means that the data is accurate and reliable.
58. Data mapping helps to ensure data integrity by maintaining information in only one place.
59. The three major types of databases currently in use are relational, object-oriented, and multidimensional.
60. Office Support System (OSS) is designed to improve communications and assist employees in accomplishing tasks.

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Section C: Structured Questions (Total: 40 Marks)

Instruction: Please write all your answers in the Answer Booklet provided.

QUESTION 1

a) In terms of computing, ergonomics refers to how you set up your computer and other equipment to minimize your risk of injury or discomfort. List **FIVE** guidelines a worker should know to avoid injuries when working at their computer. (5 Marks)

b) "KUALA LUMPUR: Malaysia has emerged as one of the largest e-commerce markets in South-East Asia alongside Singapore and Indonesia, according to eBay Inc.'s report, Commerce 3.0: Enabling Asian Small and Medium Enterprises (SMEs)." (*Source: Unknown*)

As e-commerce booms, so does the increase number of frauds and criminal related cases. List **FIVE** steps that you can take to ensure a safer online shopping or transaction. (5 Marks)

[Total: 10 Marks]

QUESTION 2

a) List **FIVE** types of business-related software used by large businesses. (5 Marks)

b) A filename is a name used to uniquely identify a computer file stored in a file system. What are the rules that could serve as a guideline in structuring file name? Based on the guideline, give an example of file name. (5 Marks)

[Total: 10 Marks]

QUESTION 3

a) Differentiate between memory and storage. (2 Marks)

b) Explain the **TWO** categories of memory. Give an example of each category. (3 Marks)

c) Briefly define network architecture. List **FOUR** characteristics of network architecture. (5 marks)

[Total: 10 Marks]

QUESTION 4

a) Voice over Internet Protocol (VoIP) is a form of voice-based Internet communication that turns a standard Internet connection into a means to place phone calls. List **TWO** advantages and **TWO** disadvantages of VoIP. Give an example of VoIP provider. (5 Marks)

b) Differentiate between spam and spim. Provide **THREE** ways to help avoid spam. (5 Marks)

[Total: 10 Marks]

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